
HOSTA YINGERI (LILIACEAE/FUNKIACEAE): A NEW SPECIES FROM KOREA

The genus *Hosta* Tratt. includes ca. 22–25 species of rhizomatous herbaceous perennials from Japan, China, and Korea. The genus is well known to gardeners in the United States, Europe, and New Zealand, since the species and cultivars are widely grown in shady gardens for their attractive foliage and flowers (Aden, 1988). They are also grown as ornamentals and eaten cooked in China, Japan, and Korea. Traditionally *Hosta* has been placed in the Liliaceae (e.g., Cronquist, 1981) or in the Funkiaceae (Dahlgren et al., 1985) along with *Hesperocallis* A. Gray and *Leucocrinum* Nutt. ex A. Gray, both from western North America.

Bailey (1930) and Stearn (1931) noted that *Hosta* is a taxonomically difficult genus with confused nomenclature. Although a number of papers have been published on *Hosta* during the past 50 years, there has been little improvement in our understanding of the genus. The matter has been largely complicated by broad (Fujita, 1976) or narrow (Maekawa, 1940) species concepts and confusion caused by cultivars. The plants have relatively few good diagnostic features that can be observed in pressed and dried herbarium specimens (Hylander, 1954). In an attempt to improve our knowledge of *Hosta*, my associates Carleen Jones, Myong Chung, and Haynes Currie and I have been attempting to assemble a collection of living hostas. Several years ago Barry R. Yinger, then of the U.S. National Arboretum, supplied seeds of several accessions of *Hosta* collected from Taehuksan Island, a remote island off the southwestern coast of Korea. Examination of my cultivated plants and field-collected vouchers at NA reveals a new species, named in honor of the collector, Barry Yinger.

Hosta yingeri S. B. Jones, sp. nov. TYPE: Korea. Cholla Namdo, Shin An Gun, Huksan Myon, Taehuksan Island, east side of Yeri village, 34.40N, 125.6E. Among rocks on northwest-facing talus slope, shade, on cut-over hillside, ca. 60 m, common, 23 Sep. 1985, B. R. Yinger, T. R. Dudley, J. C. Raulston, A. P. Wharton & Y. J. Chang 3616 (holotype, NA). Figure 1.

Lamina folii elliptica-lanceolata vel anguste-ovata, semi-erecta; apex acuminatus, petiolus valde sulcatus, basis laminae paullatim in petiolum attenuata; petiolus superne alatus et inferne paullatim angustatus; scapus viridis glaber levis, racemo laxo multifloro terminatus, bracteis parvis instructus; flores non-secundi, perianthium sex-partitum, tubiforme-infundibuliforme; stamina tria + tria, libera, exserta, declinata, in base perianthii affixa; tria filamenta elongata.

Plants glabrous, herbaceous perennials from short, clumpy rhizomes. Leaves ascending obliquely, spirally arranged at base of stem; petioles 3–7(–15) cm long, 2–5 mm wide at the middle of the petiole, greenish or sometimes with purple spots, winged; blades 4–15(–21) cm long, 2.2–7(–11) cm wide, elliptic-lanceolate or narrowly ovate, rigid and heavy-textured, acuminate at the apex, gradually narrowed at the base into the petiole, having a V-type fold in the base of the blade extending down into the petiole, the veins of upper leaf surface inconspicuous when fresh, the veins of lower leaf surface in 3–4(–6) pairs of prominent, smooth lateral veins on either side of the midrib. Scapes 2–4 times longer than the leaves, erect, smooth, usually with 1–2 linear-lanceolate bracts below the inflorescence, 1–2 cm long, 2–3 mm wide; raceme 20–25-flowered, the flowers equally arranged around the central axis of the raceme; pedicels 1.2–2 cm long, longer than the subtending bracts; bracts flat, greenish, papillose at the apex, 8–12 mm long, 2–3 mm wide. Perianth (fresh) whitish purple, tubular-funnelform, ca. 3.6–4 cm long; tube slender, ca. 1.8–2 cm long, ca. 5 mm wide, white inside; throat white with purple between each lobe, veins not intensely colored; limb ca. 1.8–2 cm long, lobes 6, ca. 5 mm wide, inner surface light purple; tops of the flower buds purplish. Stamens distinct, 3 + 3, conspicuously exserted; filaments white, attached to the base of the perianth tube, strongly declined, then curving upwards, one set ca. 3.1 cm long, the other ca. 4.4 cm long, the filaments attached to the connective of the anthers in a groovelike pit; the anthers ca. 3 mm long, white beneath, black above. Style filiform, ca. 4.5 cm long, exserted beyond the stamens; stigma small, capitate, moist. Capsules cylindric,

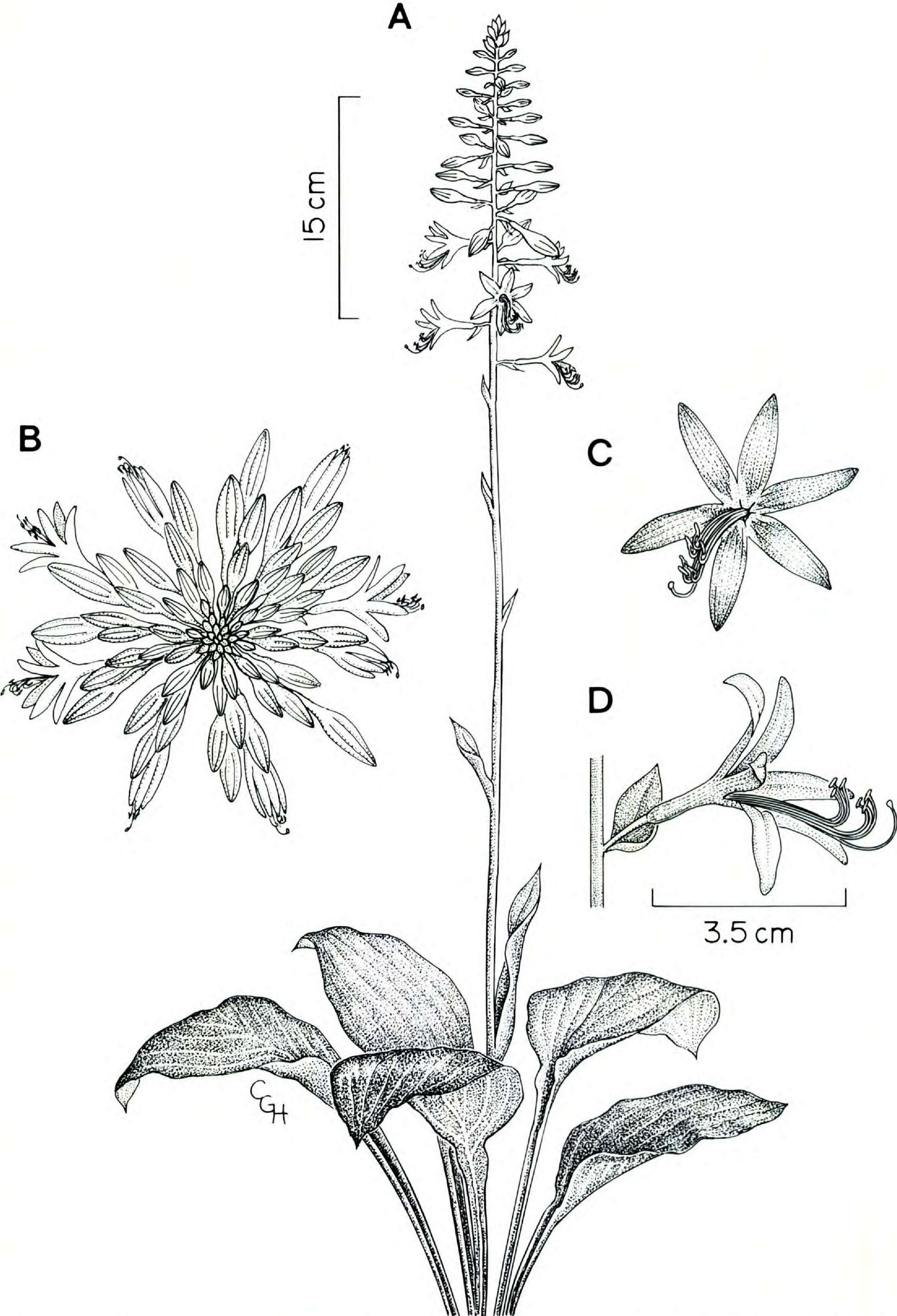


FIGURE 1. *Hosta yingeri*. —A. Habit. —B. Downward view of the raceme axis showing the flowers spread evenly around the central axis of the inflorescence. —C. Flower viewed from front. —D. Flower viewed from the side. (Drawing prepared by Carol L. Gubbins Hahn from fresh material of garden-grown seedlings of holotype collection.)

2.5–3 cm long, 4.5–6 mm wide; seeds black, flattened, winged, ca. 8.4 mm long, ca. 3.4 mm wide; cotyledon small, undifferentiated.

Flowering in August and September in Korea and in my garden located in northeast Georgia in August; fruiting and maturing seed in September and October.

Paratypes. KOREA. TAEHUKSAN ISLAND: garden-grown material of same collection as holotype, *Yinger et al.* (GA); *Yinger et al.* 3585 (NA) and garden-grown material (GA); *Yinger et al.* 3244, 3610 (NA) and garden-grown material (GA); Sohuksan Island, *Yinger et al.* 3164 (NA).

Hosta yingeri is distinct from other species of *Hosta* in its relatively thick, adaxially dark green leaves. This feature may be an adaptation to its coastal habitat, growing at 2–60 m above sea level. It is also distinguished by its delicate raceme of flowers spread evenly around the central axis of the inflorescence; typically, *Hosta* has subsecund racemes. An additional diagnostic feature of *H. yingeri* is the exceptional length of the second set of stamens, with both sets exerted well beyond the perianth. Our living material has been compared with representative accessions of all species of *Hosta* in our garden and with loans of herbarium material. *Hosta yingeri* is an attractive and interesting new species with horticultural potential. It

appears to be associated with Maekawa's (1940) subgenus *Bryocles*, section *Tardanthae*. *Hosta yingeri* does not resemble our garden-grown material of *H. tsushimensis* obtained from the National Arboretum.

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